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FIG. 1

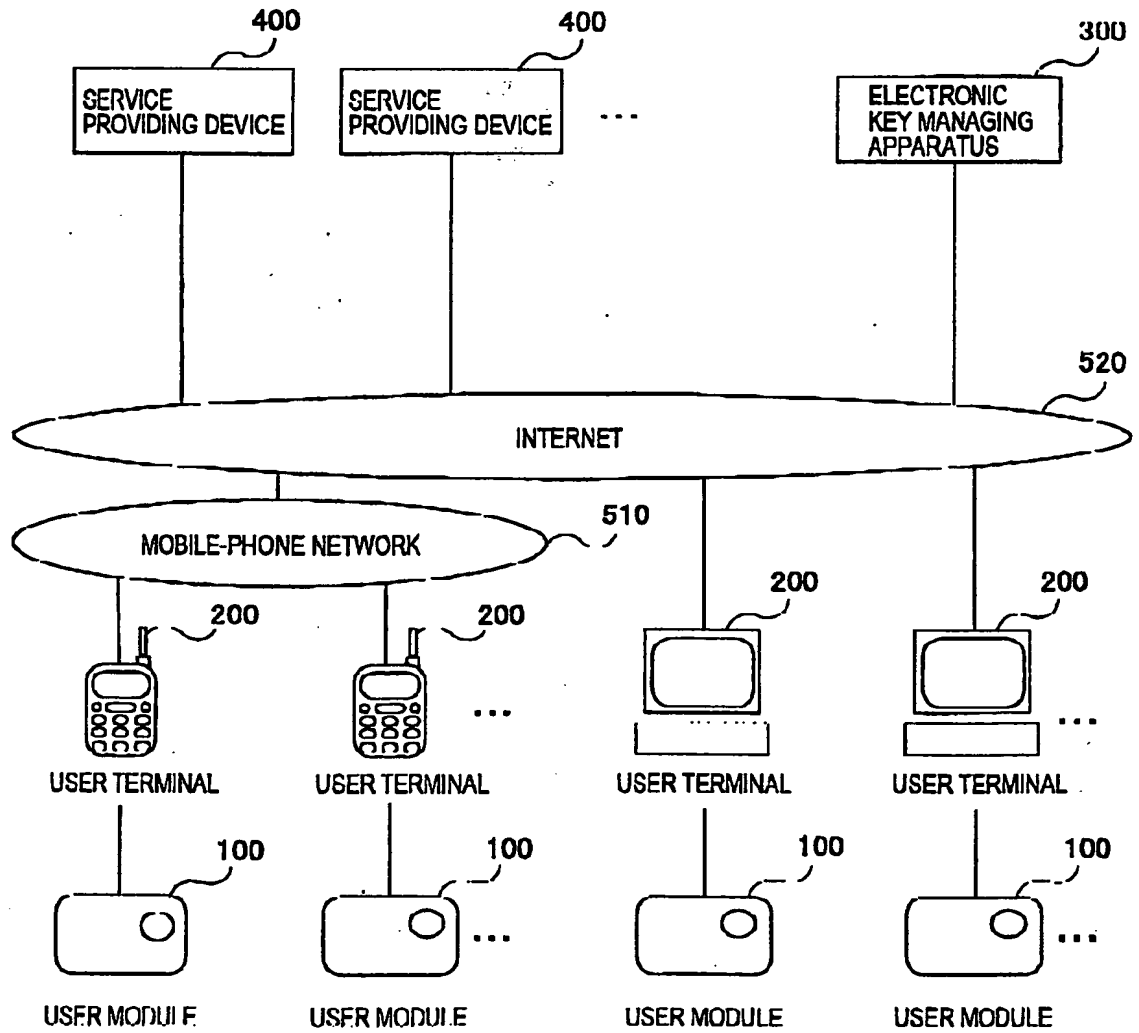


FIG.2

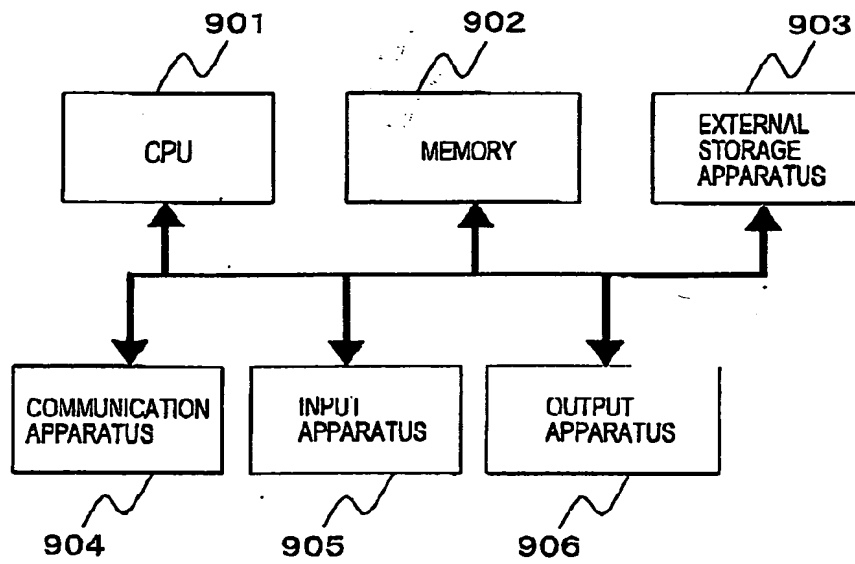


FIG.3

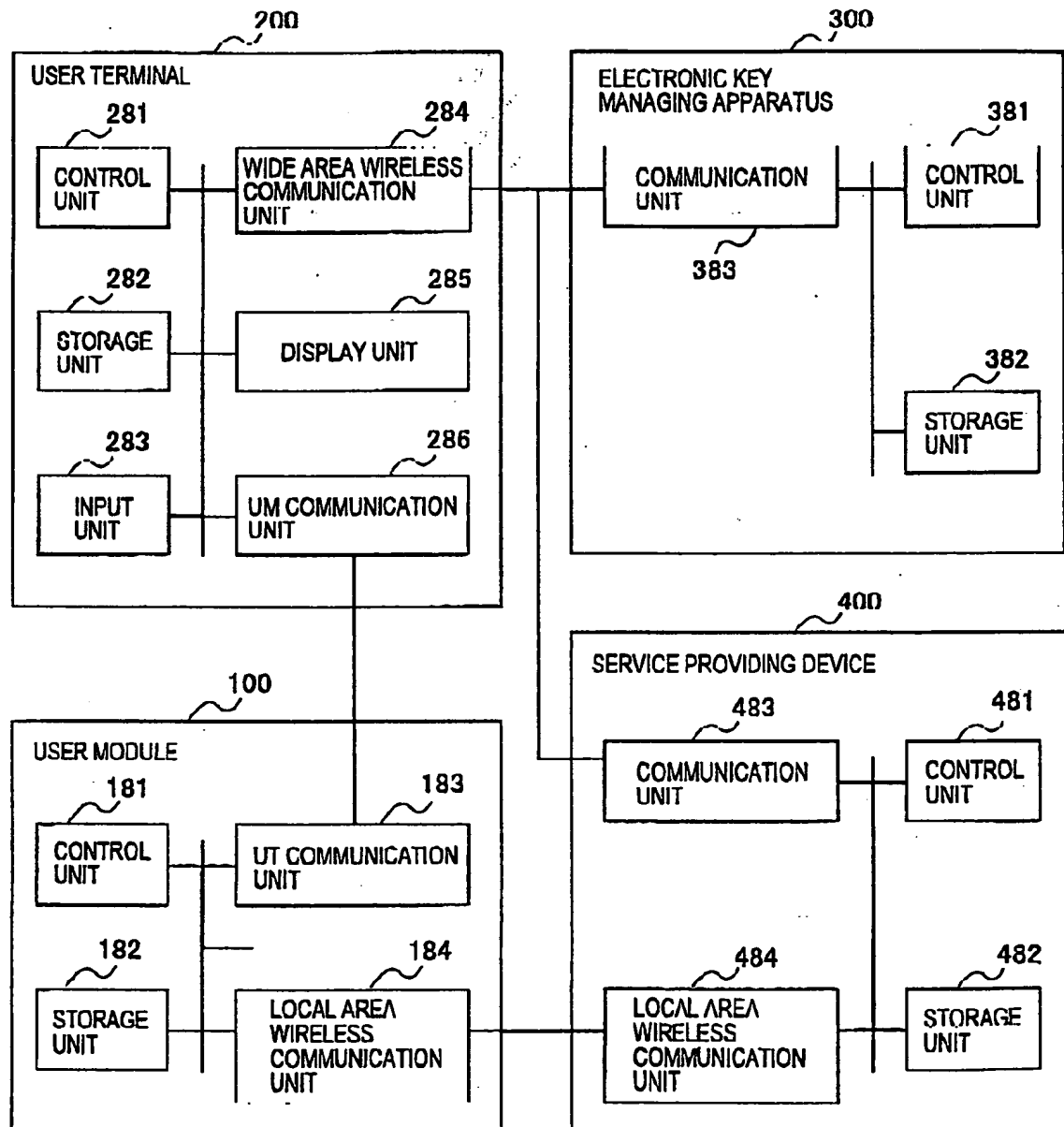


FIG.4A

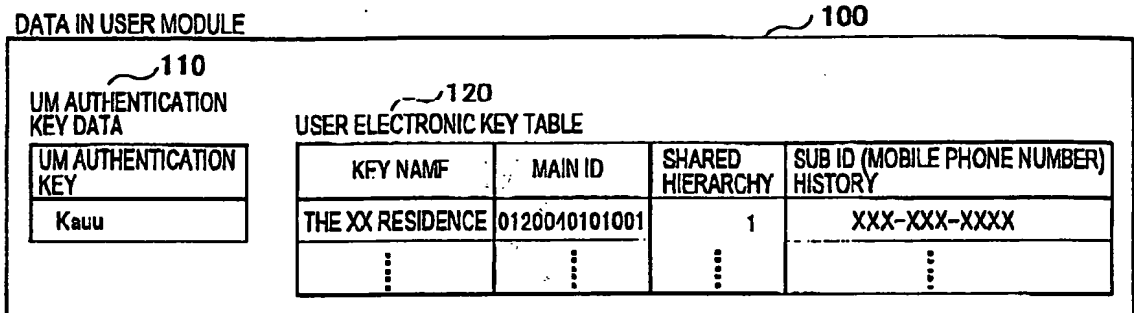


FIG.4B

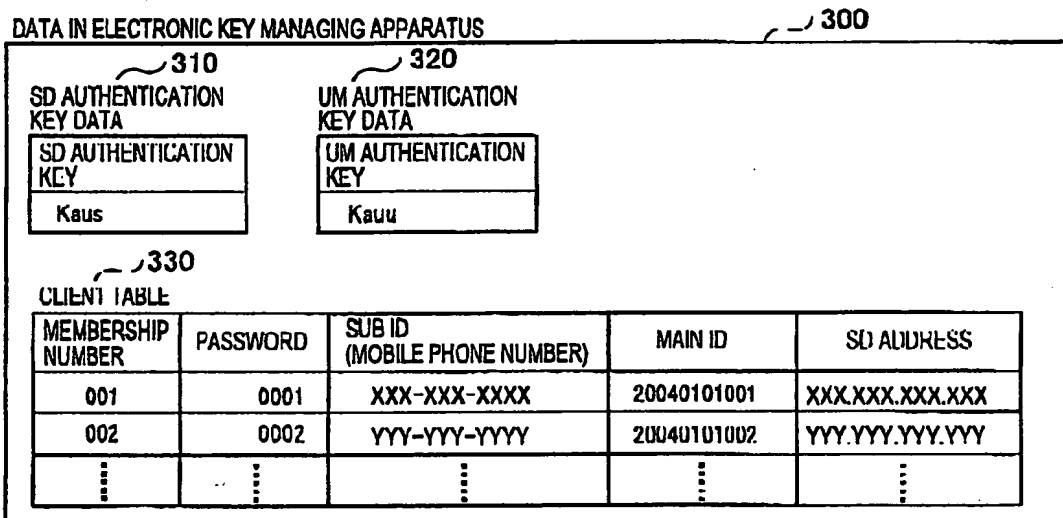


FIG.4C

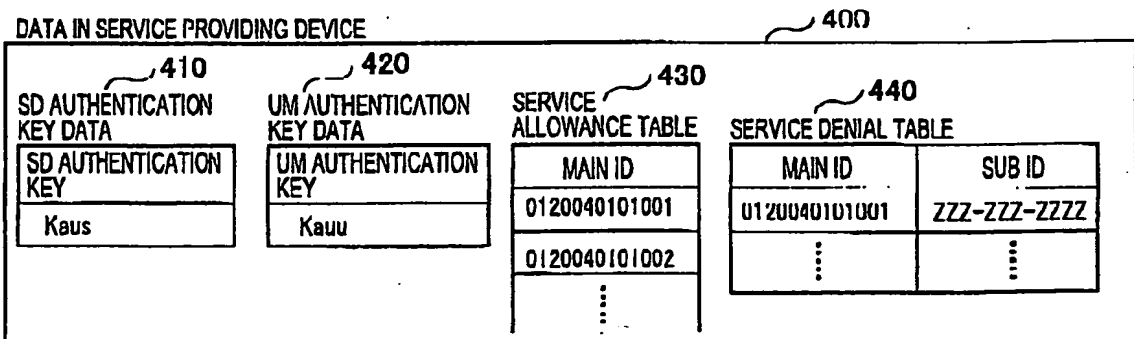


FIG.5

USAGE PROCESSING

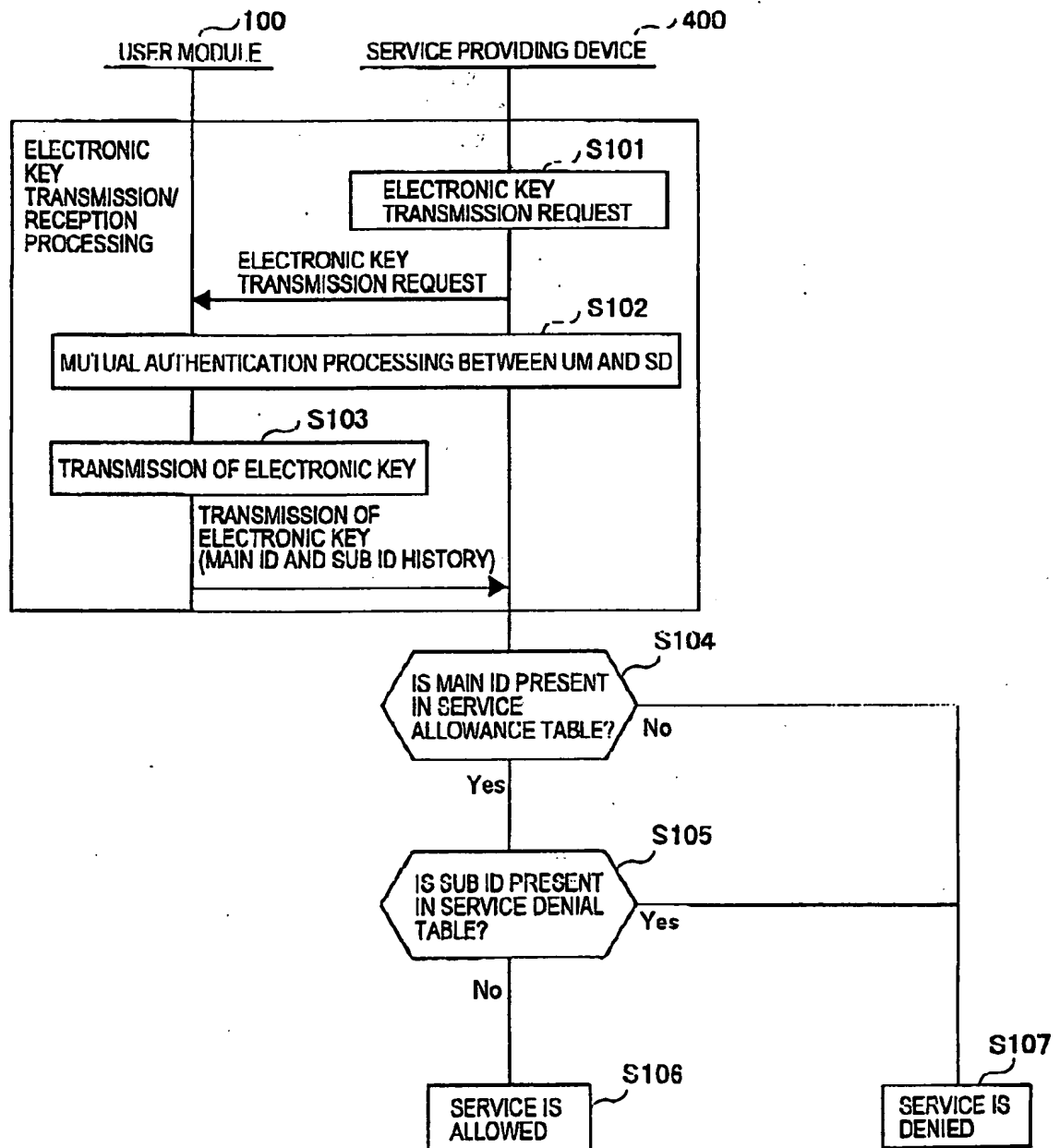


FIG. 6

USAGE PROCESSING

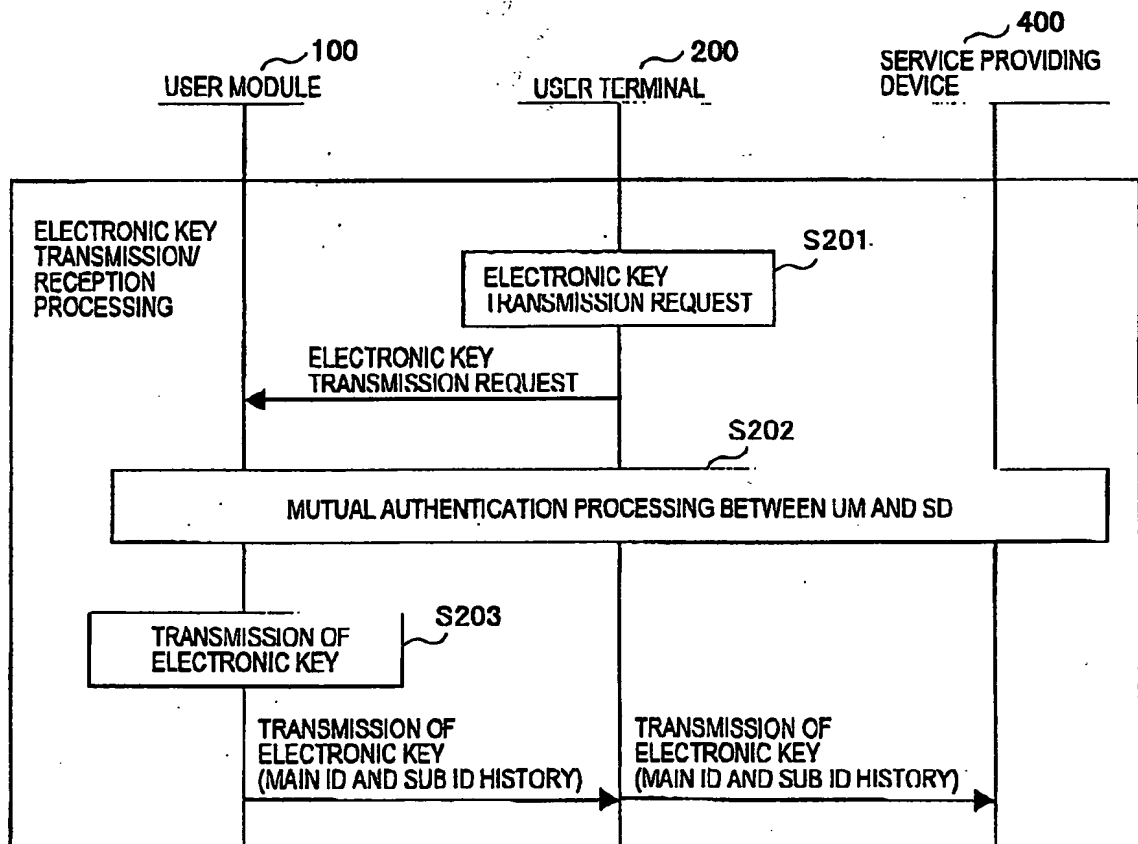


FIG.7

SHARING PROCESSING

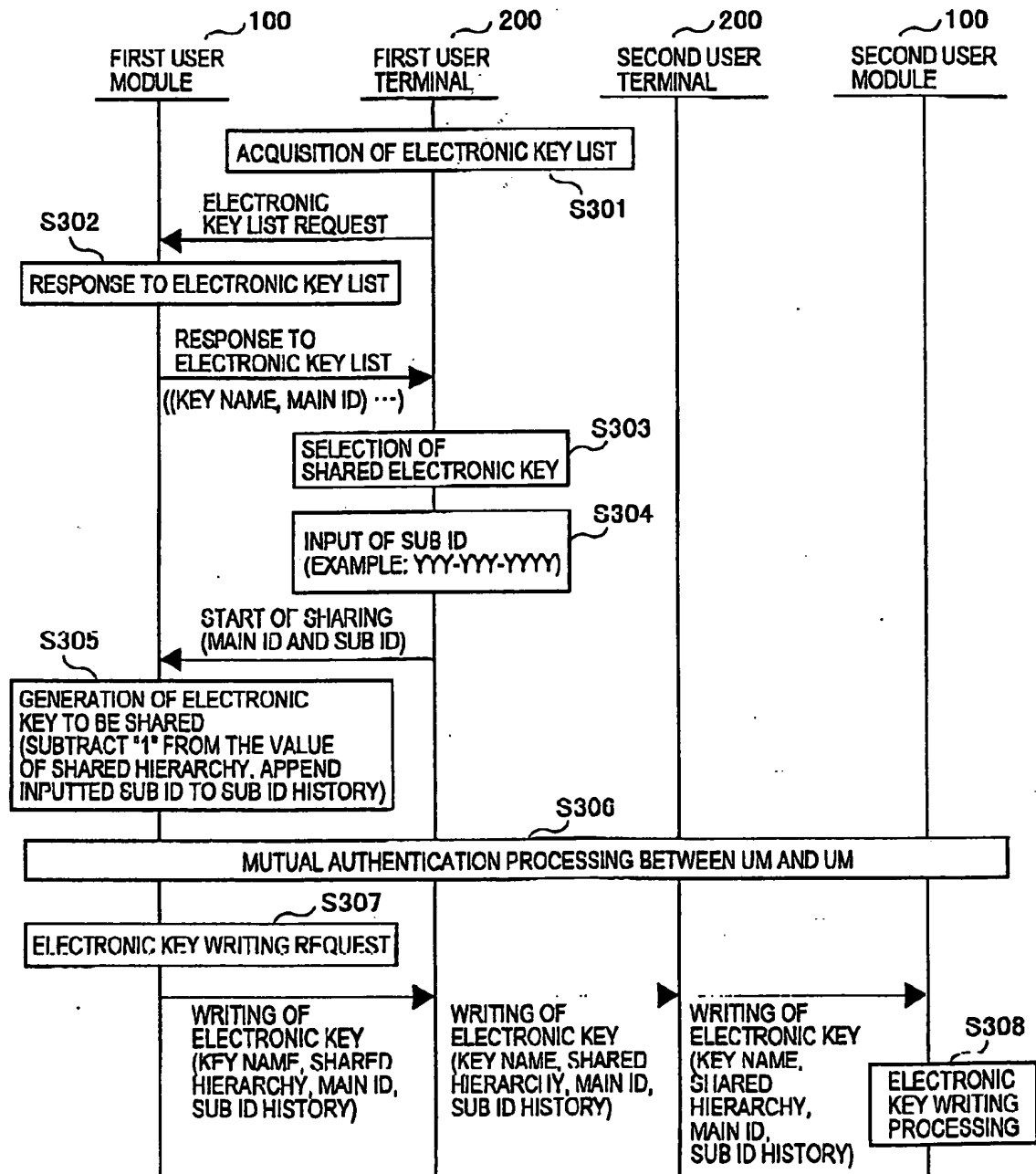


FIG. 8

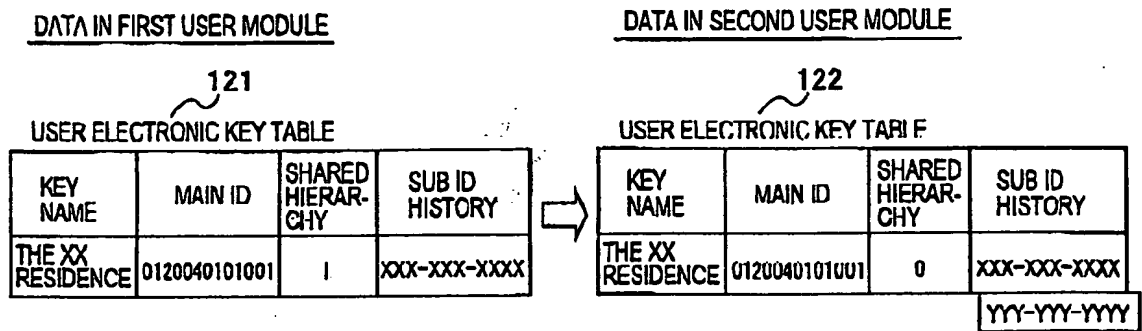


FIG. 9

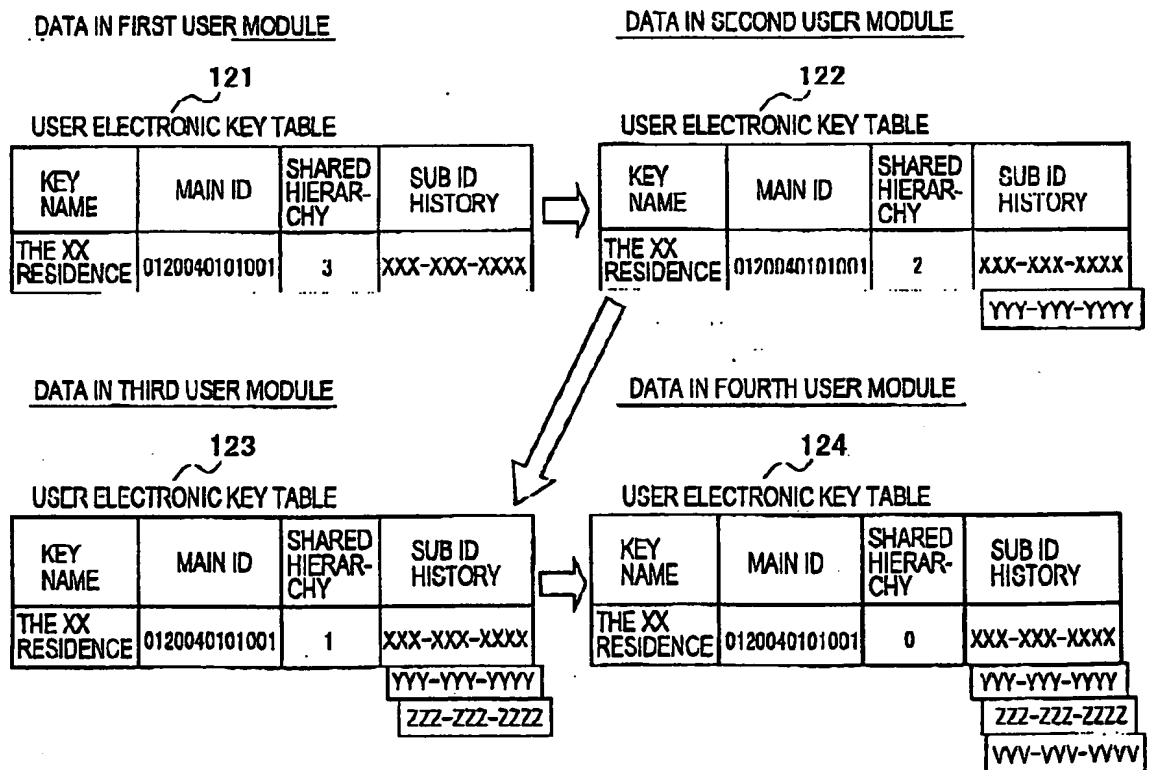


FIG.10

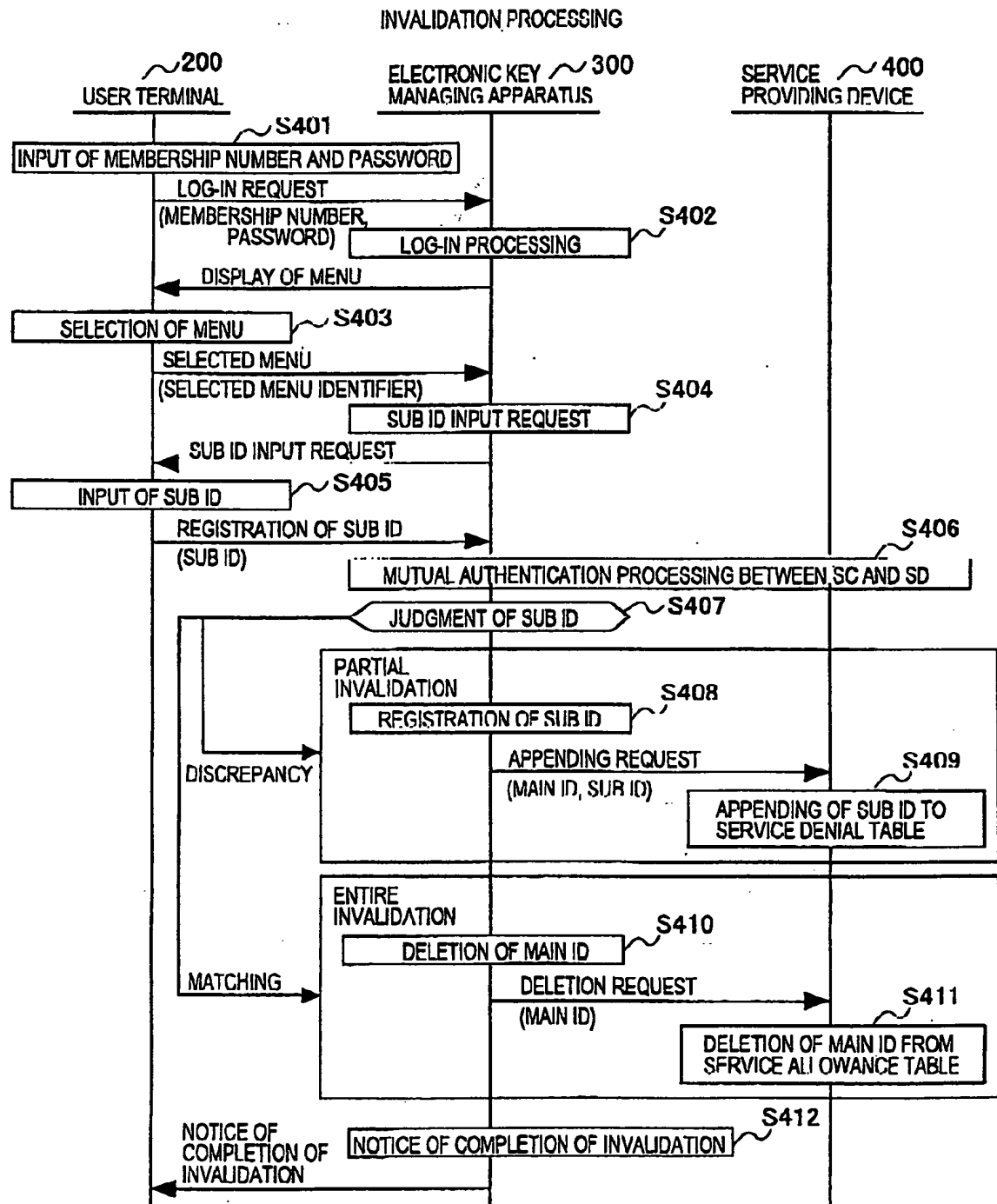


FIG.11A

SHARING PROCESSING

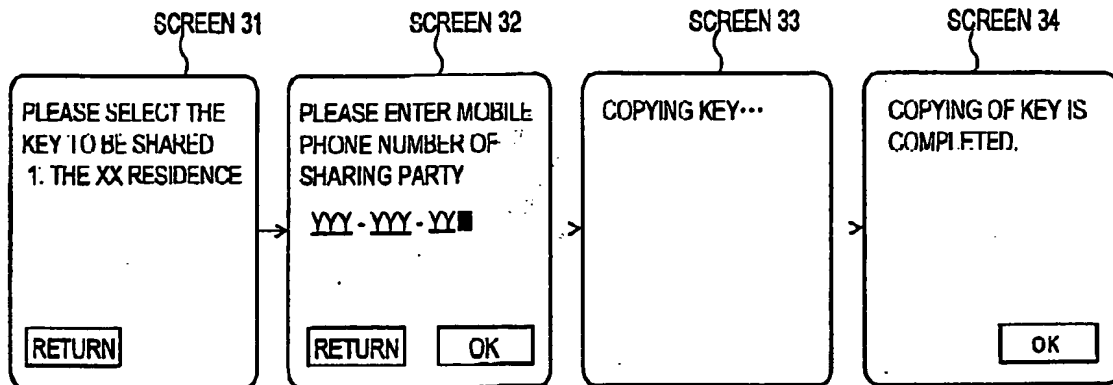


FIG.11B

INVALIDATION PROCESSING

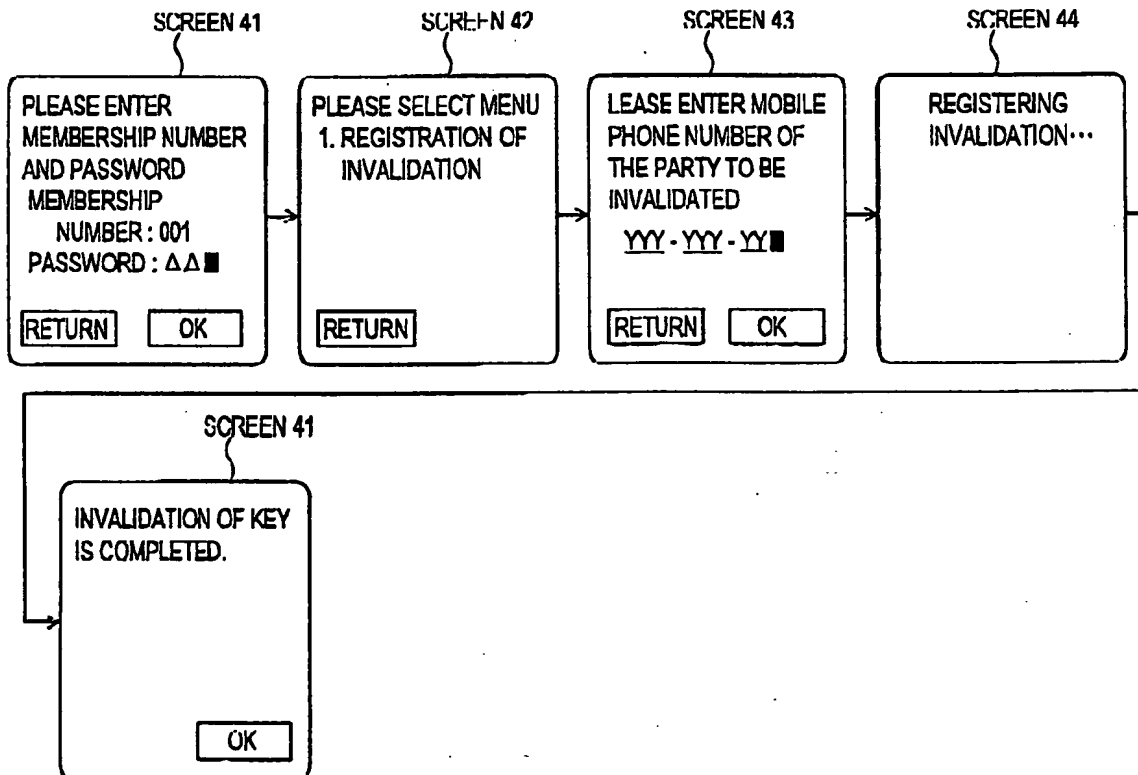


FIG.12A

DATA IN USER MODULE

100

| | | | | |
|----------------------------|---------------------------|---------------|------------------|--------------------------------------|
| UM AUTHENTICATION KEY DATA | USER ELECTRONIC KEY TABLE | | | |
| UM AUTHENTICATION KEY | KEY NAME | MAIN ID | SHARED HIERARCHY | SUB ID (MOBILE PHONE NUMBER) HISTORY |
| Kauu | CAR TYPE A | 0120040101001 | 1 | XXX-XXX-XXXX |
| | CAR TYPE B | 0120040101002 | 0 | YYY-YYY-YYYY |
| | ⋮ | ⋮ | ⋮ | ⋮ |

FIG.12B

DATA IN ELECTRONIC KEY MANAGING APPARATUS

300

| | | | | |
|----------------------------|----------------------------|-------------------|----------|------------------------------|
| SD AUTHENTICATION KEY DATA | UM AUTHENTICATION KEY DATA | CLIENT TABLE | | |
| SD AUTHENTICATION KEY | UM AUTHENTICATION KEY | MEMBERSHIP NUMBER | PASSWORD | SUB ID (MOBILE PHONE NUMBER) |
| Kaus | Kauu | 001 | 0001 | XXX-XXX-XXXX |
| | | 002 | 0002 | YYY-YYY-YYYY |
| | | ⋮ | ⋮ | ⋮ |

| | | | | | |
|-------------------|------------|-------------------|---------------|--------------|--------------------------|
| TRANSACTION TABLE | | | PRODUCT TABLE | | |
| MAIN ID | PRODUCT ID | MEMBERSHIP NUMBER | PRODUCT ID | PRODUCT NAME | CORRESPONDING SD ADDRESS |
| 0120040101001 | 001 | 001 | 001 | CAR TYPE A | XXX.XXX.XXX.XXX |
| 0120040101002 | 002 | 002 | 002 | CAR TYPE B | YYY.YYY.YYY.YYY |
| ⋮ | ⋮ | ⋮ | | | |

FIG.12C

DATA IN SERVICE PROVIDING DEVICE

400

| | | | | | |
|----------------------------|----------------------------|-------------------------|--|----------------------|--------------|
| SD AUTHENTICATION KEY DATA | UM AUTHENTICATION KEY DATA | SERVICE ALLOWANCE TABLE | | SERVICE DENIAL TABLE | |
| SD AUTHENTICATION KEY | UM AUTHENTICATION KEY | MAIN ID | | MAIN ID | SUB ID |
| Kaus | Kauu | 0120040101001 | | 0120040101001 | ZZZ-ZZZ-ZZZZ |
| | | 0120040101002 | | ⋮ | ⋮ |
| | | ⋮ | | | |

FIG.13

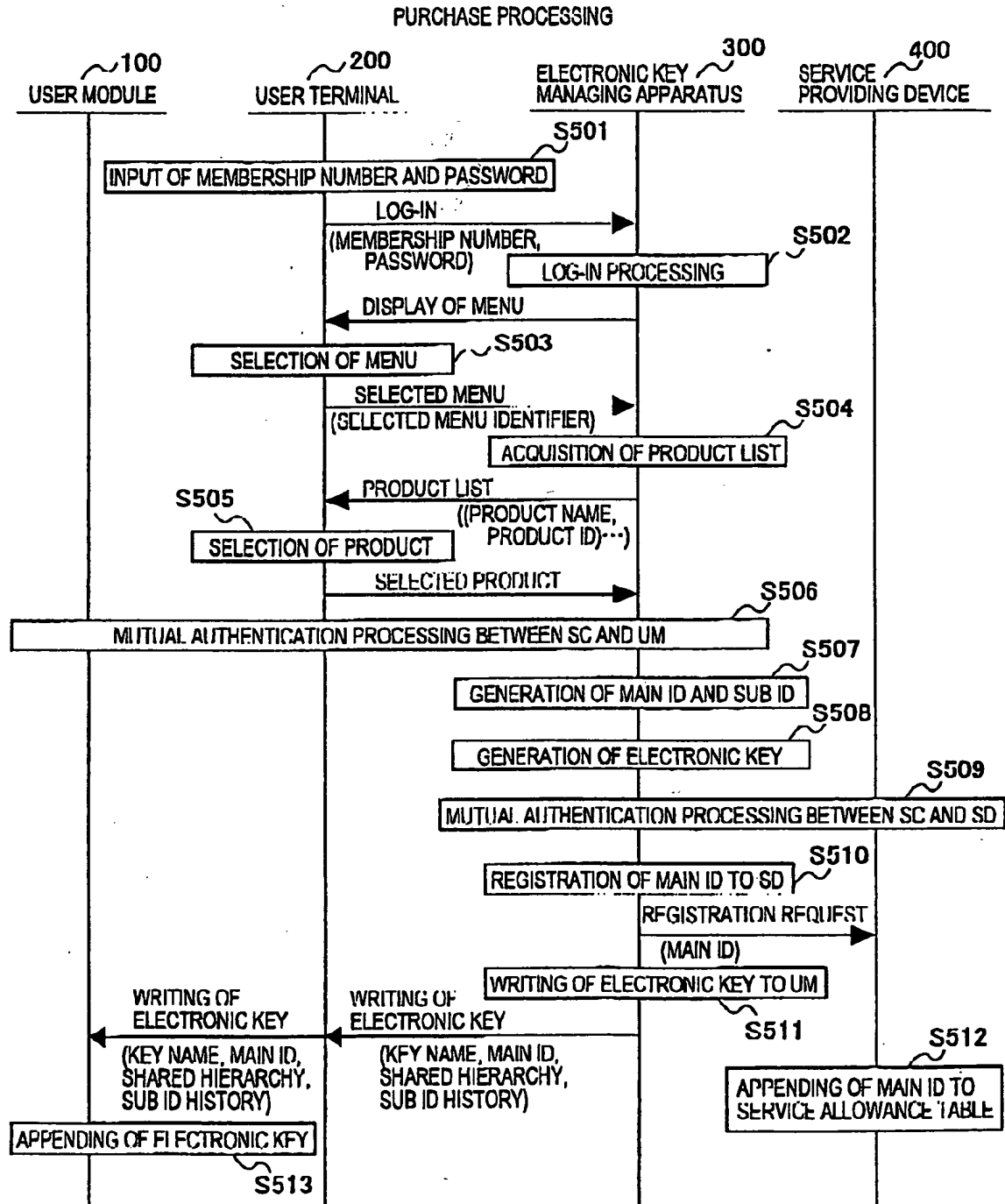


FIG.14A PURCHASE PROCESSING

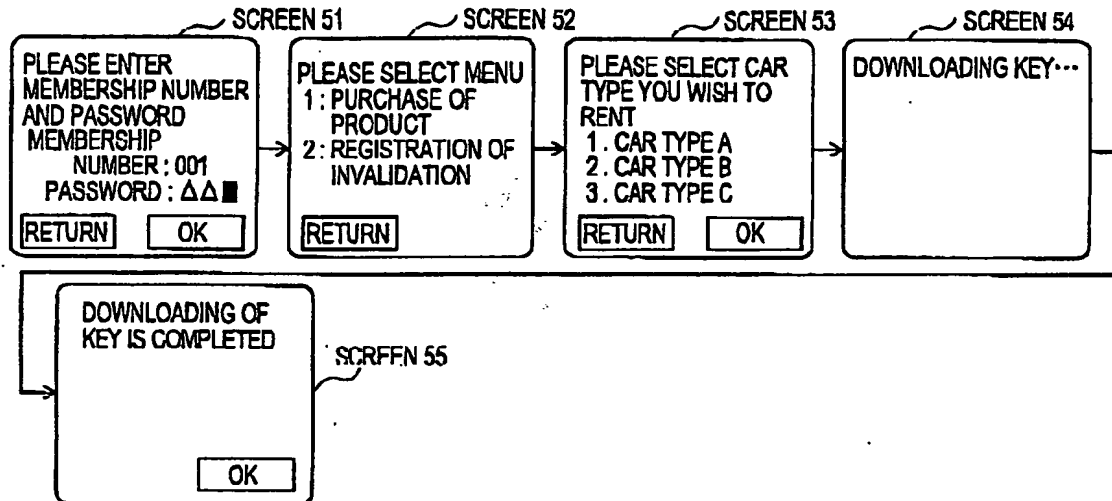


FIG.14B SHARING PROCESSING

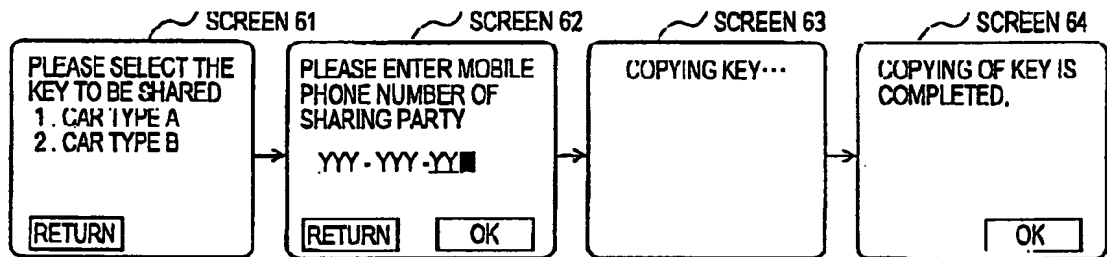


FIG.14C INVALIDATION PROCESSING

